

# V. Toolbox for Recovery

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## ➤ EDUCATING THE PUBLIC ABOUT THE NEEDS OF SALMON

### I. Current Situation: *Where are we now?*

The state resource and education agencies offer programs to help citizens develop knowledge and skills necessary to take personal responsibility for protecting salmon. The state is committed to helping build local knowledge in communities and among landowners, and to couple that with scientific information, education, skill-building and technical support.

More than 20,000 environmental volunteers are working with state agencies on habitat restoration and water pollution prevention, and taking other actions to support salmon survival. Thousands more work through county and city governments, conservation districts and civic groups.

Continuing Efforts. Every one of the state's resource and educational agencies has responded to the growing salmonid crisis by increasing educational efforts, placing additional emphasis on salmon in current education and volunteer programs, and developing new tools for education and public participation in salmon recovery.

To expand these efforts, the state proposes to:

- Expand the Governor's Council on Environmental Education to include a Volunteers and Education committee to coordinate state agency volunteer activities.
- Create a program to train volunteers.
- Support a statewide information clearinghouse on salmon recovery and related volunteer activities.

### II. Goal and Objectives: *Where do we want to be?*

#### **Goal:**

Inform, build support, involve and mobilize citizens to assist in restoration, conservation and enhancement of salmon habitat.

**Objectives:**

- Organize a statewide coalition of individuals, groups, associations and governments that will work together to educate the public about salmon recovery.
- Inform the public about the condition of salmon, steelhead and trout, and how the public can be involved in their recovery.
- Inform the public about the ramifications of having Endangered Species Act (ESA) listed salmon, steelhead and trout in their watersheds.
- Promote and enhance volunteer resources needed to implement recovery efforts.

**III. Solutions: *What is the route to success?*****Enhance existing efforts**

- The Governor's Council on Environmental Education will be expanded to include a Volunteers and Education committee, reflecting the key element of successful environmental education: giving people the knowledge, skills and support to do something positive about salmon recovery. The Governor's Council has increased its attention to strengthen education programs about salmon and watershed health, and is working with Montana State University and other northwestern states and British Columbia to develop a Columbia watershed teaching guide for secondary and adult education.
- The Governor's Salmon Team has played the key role in organizing a broad collaboration of agency and civic groups to work on education and outreach statewide. (The coalition is described in the next section of this chapter.)
- Washington Department of Fish and Wildlife (WDFW) is the agency with primary responsibility for fish. WDFW considers salmon education a major priority in its continuing programs.

WDFW provides support to 12 regional fisheries enhancement groups -- volunteers whose major focus is salmonid restoration and propagation. WDFW provides technical assistance and other resources to the groups, which often perform the physical work needed to restore habitat, propagate fish and other related efforts. The enhancement groups are eligible for funds from the Aquatic Lands Enhancement Account to undertake projects ranging from removal of fish passage barriers to habitat restoration.

The Department of Fish and Wildlife also maintains a "Salmon in the Classroom" program, which puts refrigerated aquaria and salmon eggs into classrooms. A similar program is offered in the Seattle area through Seattle Public Utilities. More than 500 teachers and their students learn about salmon life cycles and help restore habitat. In some cases, this has led to salmon returning to streams after absences as long as 30 years. The schools frequently work with community members, including the regional fisheries

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enhancement groups, Trout Unlimited, Washington Trout and other environmental groups. Another school-focused program, Aquatic Wild, will offer 17 teacher workshops on salmon survival issues in 1999, estimated to reach 500 teachers.

The agency continues to offer angling education, with a heavy emphasis on water quality and other habitat aspects. This program focuses on training adults who then teach other adults and youth.

The Department of Fish and Wildlife (WDFW) is developing materials and other resources to enable individuals, businesses and institutions to:

- assess and improve their own practices which affect salmon;
- educate recreational fishers about the differences among hatchery, wild, Atlantic and native salmon;
- improve staff methods of placing new volunteers into salmon restoration projects;
- increase focus on wild salmon in teacher workshops and classroom materials;
- develop a slide show and speakers bureau on salmon recovery;
- provide "Salmon Saver Toolboxes" (trunks with educational materials for learners of all ages) to regional offices and other selected users; and
- develop a resource guide. The resource guide will explain the decline of the salmon, what government and civic groups are doing about it, how individuals or groups can become involved, and will have a contact list of those now active in salmon recovery.

Finally, through the Aquatic Lands Enhancement Account, WDFW will continue to make grants available to volunteer organizations for education, restoration and environmental monitoring, for school-based programs conducting habitat enhancements, and for development of outdoor learning labs.

The Department of Ecology is the agency with primary responsibility for water. Ecology supports watershed education for adults in selective counties, provides technical education for small businesses which deal with hazardous chemicals (photo shops, dry cleaners, auto service businesses, etc.), and underwrites community education through many Centennial Clean Water Fund grants to local groups.

For teachers and youth, Ecology offers teachers training in using Project WET, a nationally acclaimed watershed education program for classrooms; and two other classroom-oriented curricula on wetlands and waste reduction and recycling. Ecology has helped launch water festivals in several communities, which include teaching about and celebrating salmon.

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Ecology also maintains Watch Over Washington, an electronic Web site aimed at environmental volunteers who monitor water quality, wildlife, fish and wildlife habitat, and other environmental parameters.

Ecology offers a wide range of public educational programs at Padilla Bay National Estuarine Research Reserve, teaching people of all ages about natural environmental processes, including salmon. Ecology is a key partner with local agencies in using posters and ads on all media about pollution prevention in Puget Sound.

Finally, Ecology leads an annual autumn interagency and civic collaboration called WaterWeeks, which supports and publicizes community education and events focused on water and watersheds. The 1998 emphasis was on salmon and water, and this theme is expected to continue in coming years.

The Puget Sound Action Team (PSAT) coordinates efforts to clean up Puget Sound. Through the Public Information and Education (PIE) program, contracts are awarded to local governments, tribes, businesses, civic and neighborhood groups to educate about local problems and bring about local solutions.

Contractors have organized and trained volunteers and professionals to restore salmon habitat by:

- replanting riparian areas.
- building fish ladders.
- removing fish passage barriers in selected streams.
- adding large woody debris to salmon streams.
- stopping or preventing water pollution from on-site sewage systems.
- reducing chemical use in homes and private and public gardens.
- adopting streams.
- using best methods during construction to reduce run-off and pollution from building sites.
- chemical and biological water quality monitoring.
- inventorying wetlands and streams and near-shore areas for restoration and protection.
- planting eelgrass for fish habitat.
- reducing water use in businesses and homes.
- enabling citizens to bring sewage treatment systems into communities to replace failing septic systems.

The Puget Sound Action Team (PSAT) will direct a special effort to educate local government officials on the importance of near-shore areas to salmonids and ecosystem health.

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The State Parks and Recreation Commission provides environmental education and training on park lands, often in cooperation with local environmental education and natural science groups. As a result, trained volunteers now monitor intertidal zones on beaches, manage nature centers and offer science and local history programs to the general public, undertake beach and park clean-ups, and teach restoration to others in their communities.

The Washington State Department of Transportation (WSDOT) has several efforts relevant to salmon recovery. The Environmental Affairs Office trains college students to monitor wetlands created as mitigation for road construction, and provide data to the WSDOT. This new program is being expanded from a single university to others in the state. WSDOT is also a major supporter and participant in planning WaterWeeks with the Department of Ecology.

The Washington Department of Natural Resources (DNR) educates and trains youth and adults about forest ecosystems, geology, agriculture, fire ecology, aquatic lands and many other topics. DNR has developed some of the most innovative education for action programs in Washington.

DNR's volunteer coordination program works with civic groups to have them adopt trails, revegetate lands and other actions. DNR provides training, staff support and tools. DNR works on a continuing basis with students, schools and communities in Hood Canal to map, revegetate and restore riparian areas and streams where wild salmonids still exist, and to monitor those efforts for success. DNR selectively works with volunteers to place large woody debris into streams and do other work of benefit to salmon in the upper Yakima watershed. DNR works with volunteers on the Mountains to Sound Greenway.

Educational components of existing programs includes teaching stewardship to small woodlot owners, supporting school programs which integrate environmental knowledge and skills, and coordinating and promoting Arbor Day tree-planting programs. In addition, DNR offers workshops and classroom materials to teachers of sixth through twelfth grade, called "Discover Washington's Natural Resources." The curriculum focuses on the integration of natural resource topics, including salmon, and offers suggestions for stewardship projects.

DNR provides grants through the Aquatic Lands Enhancement Account to local governments and tribes, ports and state agencies for improving public access to water, habitat improvement and acquisition. The current grant cycle criteria will prioritize projects focused on critical components of salmon habitat.

The Washington Department of Health (DOH) is preparing new water conservation materials for distribution by water purveyors and users who lack access to other information sources. The materials will be given to water companies and others for distribution to the general public through mailings and at public meetings and events.

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DOH supports protection of water quality by educating water purveyors, county health departments, private and public owners of beaches and swimming waters, and other entities whose activities are related to human environmental health and which influence salmonid health. DOH is a major sponsor of WaterWeeks.

Washington State University Cooperative Extension offers adult education about watersheds, soil and water, agriculture and home gardening, forest stewardship and salmonids, and other aspects of environmental and human health. Cooperative Extension has a team of water quality agents who specialize in water-related education.

In several counties, WSU Cooperative Extension provides comprehensive watershed courses, tailored to the local ecosystem, to teach about local environmental processes, economics and society. These classes, known generically as Master Watershed Stewards, require students to share their knowledge after completing the classes. Stewards subsequently undertake habitat restoration, water quality monitoring and near-shore monitoring, and provide education to others in conjunction with local, state and federal agencies and civic groups. The courses are offered in Clallam, Island, Jefferson, King, Kittitas and Pierce counties and in the Yakima watershed.

WSU Cooperative Extension has also established an Email listserver as a source of good information on salmon including restoration, ESA, meetings and conferences, workshops, grants and other resources and events.

Washington Sea Grant, based at the University of Washington, and Cooperative Extension are jointly sponsoring classes in basic knowledge about salmon for professionals who are teaching adults and youth, and who need to incorporate salmon knowledge into their own teaching. The classes will be offered at the University of Washington campus, and via television at the WSU Cooperative Learning Center at Port Hadlock on the Olympic Peninsula.

Washington State University's Center for Environmental Education works with schools, communities and tribes on habitat restoration and water quality protection in the Snake River watershed and in other parts of the Columbia watershed.

### **New Efforts: New Coalition**

Under the Government Council on Natural Resources (GCNR), an Education and Outreach Committee was created to develop comprehensive and cooperative public education and volunteer support programs. The committee is made up of representatives of the Salmon Team, Department of Fish & Wildlife, Puget Sound Action Team, Governor's Council on Environmental Education, Washington Association of Counties, Association of Washington Cities, Northwest Indian Fisheries Commission, U.S. Fish and Wildlife Service, National Marine Fisheries Service, Washington State University Cooperative Extension, local governments and public utilities.

The committee has formed a broader coalition with Washington Sea Grant, Puget Sound Power and Light, local governments, regional fisheries enhancement groups, non-profit groups concerned about salmon and water, the Washington Association of Conservation Districts, the Lower Columbia Fisheries Management Group, watershed councils, A World Institute for Sustainable Humanity (People for Salmon), Adopt A Stream Foundation, and others working on education, volunteer efforts, information and public involvement activities for salmon recovery.

The coalition's overall mission is to inform, build support, involve and mobilize citizens to assist in restoration, conservation and enhancement of salmon habitat. The three main goals are:

1. Inform the public about the condition of steelhead and salmon, how it affects their own lives and how they can be involved in salmon recovery.
2. Inform the public about the impacts of the Endangered Species-listed salmon, steelhead and trout in their watersheds.
3. Promote, expand and enhance volunteer resources needed to implement recovery efforts.

The coalition's mission, priorities and a needs assessment were developed at a meeting of 60 people representing 80 groups in August 1998. Work immediately began on the top priorities.

The coalition's priorities are:

1. Identify and bring interested groups and organizations together by watershed and region, assess their needs and identify resources; help to build and link education networks throughout the state.
2. Using the needs assessment and other information, complete a statewide education and outreach strategy that includes measuring the effectiveness of the actions.
3. Assist in coordination of information and resource sharing including the support of a clearinghouse(s) and networks managed by coalition members.
4. Identify people to serve as points of contact within watersheds and regions to facilitate communication and information sharing.
5. Develop, as needed, education tools and materials that provide the "basics" on salmon recovery and can be modified to meet area or sector needs.
6. As needed, organize, provide and/or support coalition members in delivering "training of trainers" materials and workshops.
7. Develop and link with local and regional speakers' bureaus.
8. Support, enhance and expand volunteer recruitment, training and placement efforts.

With support from Seattle Public Utilities, the Coalition has established a Puget Sound area information clearinghouse on salmon recovery, with a toll-free phone number and a Web site for the general public. These are currently staffed by King County, and soon will be staffed by the Seattle Aquarium. The toll-free number is 1-877-SALMON9. The Coalition will have access to materials and programs developed by individual members.

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It has distributed 1,000 copies of a KCTS program, "Salmon on the Brink," supplied by Seattle Public Utilities.

The coalition is developing other joint and complementary activities and programs in cooperation with the Salmon Team. These include a statewide town hall meeting in early 1999, in cooperation with public broadcasting station KCTS, Washington State University Cooperative Extension, and Seattle Public Utilities. KCTS will produce and broadcast 12 shows on salmon recovery in 1999 and 2000.

#### **IV. Monitoring and Adaptive Management: *Are we making progress?***

Effectiveness measures will be developed and monitored by the Coalition, based on the following intended results:

- An informed public that understands:
  - The condition of wild salmonids
  - The consequences of having ESA-listed salmonids in their watersheds
- A mobilized public that:
  - Works in support of salmon restoration
  - Contributes resources toward salmon restoration
  - Changes current practices and behaviors to support restoration and preservation

The Government Council on Natural Resources Education and Outreach Committee has recommended a model for measuring program effectiveness. This model would:

1. Establish criteria to evaluate the end result: changes in the factors that impact salmon recovery such as habitat restoration.
2. Identify the audience(s) and document and evaluate responses to the activities of programs provided.
3. Assess the ability of the strategy and programs to acquire the necessary resources (staff time, volunteer time, money, materials, etc.) to offer the educational activities or tools to audiences.

A subgroup of the coalition is working on a plan to implement the model as the evaluation tool for the education and outreach strategy.